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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,774	08/28/2003	Franz-Xaver Bernhard	BERNHARD4	5858

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EXAMINER

GATES, ERIC ANDREW

ART UNIT	PAPER NUMBER
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3722

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,774

Applicant(s)

BERNHARD ET AL.

Examiner

Eric A. Gates

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 2-10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 23 August 2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 02 020 612.4, filed on 13 September 2002.

Information Disclosure Statement

2. The information disclosure statement (IDS) is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

3. The abstract of the disclosure is objected to because of:
 - a. The inclusion of the legal term "means" in reference to a compressible device.
 - b. The erroneous inclusion of the phrase "Figure 1" at the bottom of the abstract paragraph.Correction is required. See MPEP § 608.01(b).
4. The disclosure is objected to because of the following informalities: The word "resilient" is misspelled on page 6, paragraph [0023]. Appropriate correction is required.

Claim Objections

A claim limitation will be interpreted to invoke 35 U.S.C. 112, sixth paragraph, if it meets the following 3-prong analysis:

(A) the claim limitations must use the phrase "means for " or "step for ";

(B) the "means for " or "step for " must be modified by functional language;

and

(C) the phrase "means for " or "step for " must not be modified by sufficient structure, material or acts for achieving the specified function.

5. In claim 1 of the instant application, 35 U.S.C. 112, sixth paragraph is invoked properly in reference to the compressible means. However, claim 2, which is dependent on claim 1, adds specific elements to the structure of the compressible means, thereby revoking 35 U.S.C. 112, sixth paragraph for claim 2 and other claims dependent upon it, in this case claims 3-6. Even when a claim element uses language that generally falls under the means-plus-function format, 35 U.S.C. 112, sixth paragraph does not apply when the claim limitation itself recites sufficient structure for performing the specified function. Thus, if the phrase "means for" or "step for" is modified by sufficient structure, material or acts for achieving the specified function, the USPTO will not apply 35 U.S.C. 112, sixth paragraph, until such modifying language is deleted from the claim limitation. The applicant has the obligation to define their inventions precisely, including whether a claim limitation invokes 35 U.S.C. 112, sixth paragraph.

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6. In claim 7 of the instant application, 35 U.S.C. 112, sixth paragraph is not invoked properly, as the phrase "means for" is not used. 35 U.S.C. 112, sixth paragraph is also revoked for claims 8-10, which are dependent upon claim 7. If an applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant must either: (A) amend the claim to include the phrase "means for" or "step for" in accordance with these guidelines; or (B) show that even though the phrase "means for" or "step for" is not used, the claim limitation is written as a function to be performed and does not recite sufficient structure, material, or acts which would preclude application of 35 U.S.C. 112, sixth paragraph.

7. Claim 2 is objected to because of the following informalities: "a compressible means" should be written as "the compressible means". Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "in the spindle housing" in line 15. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 and 10 are rejected under 35 U.S.C. 102(b) as anticipated by Bolledi, et al. (EP 1 004 395 A2) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bolledi in view of Selci (U.S. Patent 6,354,776).

9. Regarding claim 1 in the instant application, Bolledi discloses a spindle headstock that includes a motor driven spindle unit 11 and spindle housing 12. Bolledi also discloses that the motor-spindle unit is able to retract inside of its housing in one embodiment, and is axially movable therein in another embodiment, and he discloses a compressible means, 14 or 20, that compresses axially to thereby allow the spindle-motor unit to move when a predetermined force is applied. Bolledi does not directly disclose that the motor shaft is adapted to serve as a spindle, but it appears that this is the case for his invention. However, in the alternative, it is well known in the art to use the output shaft of a motor as the spindle, to thereby receive associated tools, etc., as disclosed by Selci. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the motor-spindle unit of Bolledi with the motor shaft used as the spindle as taught by Selci.

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10. Regarding claims 2-4, Bolledi further discloses the compressible means to be two tubular, i.e. spacing or annular elements, 15 and 16 (or 21 and 22) encircling the motor-spindle unit, which are arranged between axially opposite faces of the housing 13 and the motor-spindle unit and are adapted to deform when subjected to an axial force greater than normal.

11. Regarding claim 5, Bolledi discloses axially aligned holding screws 19, 24, 25, and others. Regarding claim 6, Bolledi discloses, in Figure 2 of the second embodiment, a plurality of holding screws 28 distributed about the periphery of the motor-spindle unit bearing against an intermediate annular element 27 and the compressible means 22.

12. Regarding claims 7 and 10, Bolledi discloses a switching means, which is a closed-loop machine tool control unit (not shown), that causes operation of the machine tool to be stopped when the motor-spindle unit 11 is retracted inside the housing upon deformation of the compressible means 14 or 20.

13. Regarding claim 8, Bolledi discloses a sensor means placed inside at least one of the screws 19, which operates after a relative axial movement between the motor-spindle unit 11 and the spindle housing 13, causing the operation of the switching means discussed in paragraph 12 above.

Allowable Subject Matter

14. Claim 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 5,921,731 to Chandrasekar teaches an integrated motor-spindle unit with bearings to take the axial loads of the spindle shaft. U.S. Patent No. 4,519,734 to Mitchell et al. teaches a motorized spindle having means for axially preloading the spindle bearing.

16. It is noted that applicant's cited reference to EP 1 004 395 is a counterpart to U.S. Patent No. 6,357,565.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric A. Gates whose telephone number is 571-272-5498. The examiner can normally be reached on Monday-Thursday 7:00-4:30, and alternate Fridays from 7:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

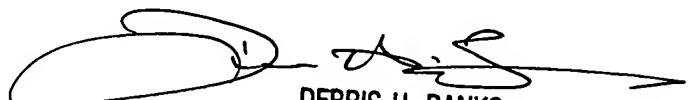
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



EAG

Eric Gates
Patent Examiner
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